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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,015	12/21/2001	Joshua J. Malone	TI-29277	2355
23494	7590	06/02/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			GEBREMARIAM, SAMUEL A	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/028,015	Applicant(s) MALONE ET AL.	
	Examiner Samuel A. Gebremariam	Art Unit 2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/10/06 has been entered. An action on the RCE follows.
2. The amendment filed on 3/10/06 has been entered.

Specification

3. The disclosure is objected to because of the following informalities:
page 1, lines 9 and 10 part of the sentences "corner to indication" appears to have a typographical error. Appropriate correction is required.

Claim Objections

4. Claims 5 and 8 are objected to because of the following informalities: Claims 5-6 and 8 recite the limitation "metallization layer". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Regarding claim 6, there is insufficient antecedent basis for this limitation of "said visible corner" as recited in line 2 of claim 6.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2811

6. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what the structural relationship is between said visible corner portion and said metallization layer. It is not clear to what portion of the package is the metallization layer electrically isolated from.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Guzuk et al. US patent No. 5,153,379.

Regarding claim 1, Guzuk teaches (fig. 1) a substrate for a device package comprising: a lower portion of a package (124); an intermediate metallization layer ((114) is ground pad pattern) on a top surface of the lower portion (124); an upper portion (104) of the package on the top surface of the lower portion (124), a portion of the lower portion (portion of 124 that is underneath 114) and a corresponding portion of the intermediate metallization (portion 114 that is covering 124) extending beyond the upper portion (104) such that the corresponding portion of the intermediate metallization layer is visible beyond the extent of the upper portion (104) when view from a direction normal to the top surface (when viewed from top the intermediate metallization layer is visible beyond the extent of the upper portion (104)).

Regarding claim 3, Guzik teaches the entire claimed structure of claim 1 above including the lower portion comprising a layered ceramic (col. 2, lines 39-49) portion containing electrical interconnections (130 and 132).

Regarding claim 4, Guzik teaches the entire claimed structure of claim 1 above including the visible corner portion comprising a plating (114) on the visible corner portion (col. 3, lines 35, 44).

Regarding claim 5, Guzik teaches the entire claimed structure of claim 1 above including an electrical device (112) electrically connected to portions of the intermediate metallization layer (114).

Regarding claim 6, as the best the examiner is able to ascertain the claimed invention, Guzik teaches the entire claimed structure of claim 1 above including an electrical device (112) electrically connected (112 is connected to 114 via 122) to portions of the metallization layer (114), the visible corner portion (114, the visible region on the corner) electrically isolated from the portions of the metallization layer electrically connected to the device (114 is not directly contacting 130 and 32).

Regarding claim 7, Guzik teaches the entire claimed structure of claim 1 above including an electrical device (112) and a lid (102) enclosing the device between the lid and the substrate (128).

Regarding claim 8, Guzik teaches the entire claimed structure of claim 1 above including the upper portion (104) having a void over the visible corner region of the metallization layer (114), the void allowing visibility to the metallization layer (col. 3, lines 38-41).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al. US patent No. 6,037,698.

Ueda teaches (fig. 15) a substrate for a device package comprising: a lower portion of a package (5); an intermediate metallization layer (16) on a top surface of the lower portion (5); an upper portion (6) of the package on the top surface of the lower portion (5), a portion of the lower portion (portion of 5 that is underneath 16) and a corresponding portion of the intermediate metallization (portion 16 that is covering 5) extending beyond the upper portion (6) such that the corresponding portion of the intermediate metallization layer is visible beyond the extent of the upper portion (6) when viewed from a direction normal to the top surface (when viewed from top, the portion of intermediate metallization layer (16) is visible beyond the extent of the upper portion 5).

Regarding claim 2, Ueda teaches the entire claimed structure of claim 1 above including the lower (5) and upper (6) portions comprising a ceramic (col. 7, lines 17-19).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guzik.

Regarding claim 9, Guzik teaches substantially the entire claimed structure of claim 1 above except explicitly stating that the void is used to mechanically position the substrate.

The limitation, the void used to mechanically position the substrate is not given patentable weight because, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore the void structure of Guzik is also capable of being used to mechanically position the substrate.

Response to Arguments

13. Applicant's arguments filed 3/10/2006 have been fully considered but they are not persuasive. Applicant states the limitation that the lower portion and intermediate

Art Unit: 2811

metallization portion extend beyond the top portion and this amended feature distinguishes claim 1 over Guzik. As shown in the rejection of claim 1 above, Guzik teaches the lower portion (124) and intermediate metallization (114) portion extend beyond the top portion as shown in fig. 1.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel A. Gebremariam whose telephone number is (571)-272-1653. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAG
May 15, 2006



DOUGLAS W. OWENS
PRIMARY EXAMINER